

What is claimed is:

1. A method for electronically translating text, comprising providing an electronic language translator; 5 receiving source language text as an input of the electronic language translator; translating the source language text at the electronic language translator into one or more target language texts; and providing a first user with an option of viewing one or more of the 10 target language texts with or without the source language texts.
2. The method of claim 1, wherein the electronic language translator includes at least a first translation engine.
3. The method of claim 1, wherein the electronic language translator includes a translation cache.
- 15 4. The method of claim 3, wherein the translation cache includes a store of phrase and equivalents across multiple languages.
5. The method of claim 3, wherein the translation cache includes a store of source and one or more target language equivalencies that are dynamically updated.
- 20 6. The method of claim 3, wherein the translation cache includes heuristics to enable matching between inputs and cache entries which are not typographically identical.
7. The method of claim 6, wherein the flexible matching heuristics include ignoring differences in the capitalization scheme.
- 25 8. The method of claim 6, wherein the flexible matching heuristics include ignoring differences in the punctuation.

9. The method of claim 6, wherein the flexible matching heuristics include dividing the input at punctuation such as commas in order to match phrases at a sub-sentential level.

10. The method of claim 6, wherein the flexible matching heuristics 5 eliminate appellatives at the beginning and end of phrases before attempting the match.

11. The method of claim 6, wherein the flexible matching heuristics include a glossary of abbreviations, slang forms, and other non-standard forms in order to recognize all variants of the cached phrases.

10 12. The method of claim 6, wherein the flexible matching heuristics include ignoring diacritics.

13. The method of claim 6, wherein the flexible matching heuristics include unifying hiragana and katakana in Japanese inputs.

14. The method of claim 6, wherein the flexible matching heuristics 15 include unifying small and large kana in Japanese inputs.

15. The method of claim 6, wherein the flexible matching heuristics include ignoring sentence-final expressive particles (*gōbi*) in Japanese inputs.

16. The method of claim 1, wherein the electronic language translator includes a plurality of translation engines.

20 17. The method of claim 16, wherein the electronic language translator includes a multiple engine comparison tool that receives translated target language outputs from multiple engines and selects a desired output.

18. The method of claim 1, wherein the electronic language translator includes a pre-processor that improves the translatability of the source language.

19. The method of claim 18, wherein the pre-processor corrects the source language inputs for improved translatability by application of language-specific heuristics

20. The method of claim 18, wherein the pre-processor includes a
5 spell-checker to correct spelling errors.

21. The method of claim 18, wherein the pre-processing expands acronyms and abbreviations that would otherwise not translate properly.

22. The method of claim 18, wherein the pre-processor includes an accent-restoration routine to correct deleted or incorrect accent marks.

10 23. The method of claim 18, wherein the pre-processor replaces slang with standard language equivalents which will translate better.

24. The method of claim 18, wherein the pre-processor replaces conversational constructions with language equivalents that translate better

15 25. The method of claim 18, wherein the pre-processor eliminates difficult to translate sentence-final expressive particles.

26. The method of claim 25, wherein the pre-processor eliminates gobi from Japanese inputs.

27. The method of claim 1, wherein the electronic language translator includes a tutorial to instruct users on use of the translator.

20 28. The method of claim 1, wherein the electronic language translator includes a composition tool that interactively guides the user to use translation-friendly language.

29. The method of claim 28, wherein the composition tool includes a spell checker that provides a notification to a user when the input includes a lexical item not found in dictionaries used by the system.

30. The method of claim 28, wherein the composition tool scans the input for at least one of specific words, phrases, and expressions which do not 5 translate properly.

31. The method of claim 28, wherein the composition tool checks for lexically ambiguous words which cause translation problems.

32. The method of claim 28, wherein the composition tool monitors a 10 length of the input and reminds the user that shorter inputs may translate better.

33. The method of claim 32 wherein the input length monitor uses heuristics to increase the input length count for terms that increase translation complexity.

34. The method of claim 33, wherein the heuristics increase the input 15 length count for conjunctions.

35. The method of claim 28, wherein the composition tool scans the input for syntactic constructions which are difficult to translate.

36. The method of claim 28, wherein the composition tool scans the input for syntactic constructions which are ambiguous.

20 37. The method of claim 28, wherein the composition tool warns the user about accent errors and suggests corrections.

38. The method of claim 28, wherein the composition tool passes the input through a language model and warns the user when the model does not recognize the input with a desired certain confidence level.

39. The method of claim 38, wherein the language model is selected from a trigram model, bigram model, unigram model, or a linear combination of trigram, bigram, and unigram models.

40. The method of claim 38, wherein the language model is a Hidden
5 Markov Model.

41. The method of claim 28, wherein the composition tool executes a preliminary translation of the input, passes the input through a language model, and warns the user when the model does not recognize the translated output with a desired certain confidence level.

10 42. The method of claim 41, wherein the language model is selected from a trigram model, bigram model, unigram model, or a linear combination of trigram, bigram, and unigram models.

43. The method of claim 41, wherein the language model is a Hidden
Markov Model.

15 44. The method of claim 1, wherein the electronic language translator provides the user an indicator to indicate those portion of the input that are not to be translated.

45. The method of claim 44, wherein the indicator includes special characters placed before and after the text not to be translated.

20 46. The method of claim 44, wherein the electronic language translator replaces text not to be translated with a lexical term that is not changed by the machine translation engine.

47. The method of claim 46, wherein the lexical term is a randomly generated, very large integer.

48. The method of claim 46, wherein the lexical term is a randomly generated, very large integer concatenated with a sequentially generated integer to ensure that the same lexical term is not generated twice in one translation.

49. The method of claim 46, wherein the lexical term is a randomly generated alpha-numeric string.

50. The method of claim 46, wherein the lexical term is a randomly generated alpha-numeric string, concatenated with a sequentially generated character, to ensure that the same lexical term is not generated twice in one translation.

10 51. The method of claim 46, wherein the lexical term is a randomly generated alpha-numeric string, concatenated with a sequentially generated integer, to ensure that the same lexical term is not generated twice in one translation.

15 52. The method of claim 1, wherein the electronic language translator uses specialized dictionaries to maximize the quality of the translation.

53. The method of claim 52, wherein the specialized dictionaries are selected from topic-specific, application-specific and user-specific dictionaries.

20 54. The method of claim 1, wherein the electronic language translator retains information about the capitalization scheme of the input, and restores this scheme in the output.

55. The method of claim 1, wherein the electronic language translator retains information about the punctuation of the input, and restores this punctuation in the output.

56. The method of claim 1, wherein the electronic language translator provides a mechanism for viewers of the translate output to indicate to the inputting user when the translation has not been understood.

57. A method for electronically translating text, comprising

5 submitting source language text to an electronic language translator;

executing translation from the source language text at the electronic language translator to at least one target language at the time of submission of the source language text;

10 outputting the at least one target language text from the electronic language translator.

58. The method of claim 57, wherein the output includes at least one of the target language texts and includes at least a portion of the source language text

15 59. The method of claim 57, wherein a first user submits the source language text and a second user receives the at least one target language text.

60. The method of claim 59, wherein the second user creates a reply in response to the at least one or more target language texts and possibly the source language.

61. The method of claim 60, wherein the reply is sent to the first user.

20 62. The method of claim 61, wherein the reply is sent to the first user in the form of the original source language.

63. The method of claim 62, wherein the original and reply texts are disseminated to multiple users.

64. The method of claim 63, wherein the multiple users are each able 25 to reply to the messages and the replies are also disseminated to multiple users.

65. The method of claim 64, wherein two or more users are communicating in a chat environment using an electronic language translator.

66. The method of claim 64, wherein two or more users are communicating in an instant messaging environment using an electronic language translator.

67. The method of claim 64, wherein two or more users are communicating in a discussion boards environment using an electronic language translator.

68. The method of claim 64, wherein two or more users are communicating in an email environment using an electronic language translator.

69. The method of claim 64, wherein two or more users are communicating in an electronic customer service environment using an electronic language translator.

70. The method of claim 69, wherein two or more users communicating in an electronic customer service environment are communicating in a chat customer service environment using an electronic language translator.

71. The method of claim 69, wherein two or more users communicating in an electronic customer service environment are communicating in an email customer service environment using an electronic language translator.

72. The method of claim 71, wherein the input text from the first user is analyzed for meaning.

73. The method of claim 72, wherein the analysis is triggered upon receipt of the input text without explicit instructions from a human operator.

74. The method of claim 72, wherein the input text from the first user is analyzed for meaning, and based upon the meaning the reply is selected.

75. The method of claim 75, wherein the analysis is triggered upon receipt of the input text without explicit instructions from a human operator.

76. The method of claim 75, wherein the reply text is delivered to the first user in the same source language as the original text.

5 77. The method of claim 57, wherein the at least one target language text is posted to an electronic marketplace system

78. The method of claim 77, wherein the at least one target language text is stored to a marketplace database.

10 79. The method of claim 77, wherein the at least one target language text is posted to the electronic marketplace system along with the source language text.

80. The method of claim 77, wherein the source language text is a description of an object in an electronic marketplace system and the one or more target language texts are a translation of the object description.

15 81. The method of claim 57, wherein the source language text represents a search query string, and the at least one translated text output is delivered as a search query string to an electronic search system

20 82. The method of claim 81, wherein the electronic search system returns one or more search results, which are then translated by the electronic language translator and returned to the original user in the original user's source language.

83. The method of claim 57, wherein the source language text is a request for a document, which is submitted from the original user's hardware using a software client, transported over a network, and delivered to a server.

84. The method of claim 83, wherein the requested document is a document augmented with information in the form of a markup language.

85. The method of claim 84, wherein the textual components of the document are extracted and translated into at least one target language by the
5 electronic language translator.

86. The method of claim 85, wherein the textual components of the document are chosen from text, mouseovers, meta-tags, and cookies.

87. The method of claim 85, wherein hotlink within the document is rewritten as calls to the electronic language translator.

10 88. The method of claim 87, wherein hotlinks are rewritten as calls to the electronic language translator so that the linked documents are automatically submitted for translation.

15 89. The method of claim 87, wherein at least one target language output is returned to the original requesting user and reconstituted with non-textual portions of the original document according to the original markup language tags.

90. The method of claim 89, wherein the non-textual portions of the original document are chosen from graphics, pictures, formatting, backgrounds, frames, animations, sounds, and videos.

20 91. The method of claim 90, wherein the reconstituted document is returned to the original requesting user to preserve the original look and feel of the original requested document.

92. The method of claim 90, wherein the original user's hardware is a computer, the user's software client is a browser, the network is a network

connection between computers, the server is another computer, and the markup language is HTML.

93. The method of claim 90, where the original user's hardware is a personal data assistant, the user's software client is a PDA browser, the network is a wireless internet, the server is a computer, and the markup language is WML or HDML.

94. The method of claim 90, where the original user's hardware is a phone, the user's software client is a WAP browser, the network is a WAP network, the server is a computer, and the markup language is WML or HDML.

95. The method of claim 90, where the original user's hardware is a phone, the user's software client is an iMode browser, the network is an iMode network, the server is a computer, and the markup language is WHTML.

96. A method for electronically translating text, comprising providing an electronic language translator system that includes an electronic language translator and at least a first and a second dictionary, wherein the electronic language translator references the first dictionary and then the second dictionary in a process of translating source language text into one or more target language texts and the dictionaries are maintained in an application or customer hierarchy;

receiving source language text at an input of the electronic language translator;

translating the source language text at the electronic language translator into one or more target language texts;

producing an output that includes the one or more target language texts.

97. The method of claim 96, wherein the electronic dictionaries include one or more of subject-specific, application-specific, customer-specific, and user-specific dictionaries.

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98. The method of claim 97, wherein the specialized dictionaries are selected for use by the electronic language translator dynamically at the time of translation.

99. The method of claim 97, wherein specialized dictionaries are created by users of the electronic translation system.

100. The method of claim 97, wherein the specialized dictionaries are maintained in a hierarchical organization.

101. The method of claim 100, wherein the dictionary hierarchy can be augmented by users with user-created dictionaries.

102. The method of claim 97, wherein the specialized dictionaries are created, stored, and modified in a format that is independent of a specific translation engine.

103. The method of claim 102, wherein the specialized dictionaries are mapped into engine-specific formats by engine specific routines.

104. The method of claim 103, wherein the specialized dictionaries are engine-independent and usable by any translation engine.

105. A method for electronic language translation, comprising;
providing one or more translation modules receiving source language text from an input interface;

20 providing one or more input interfaces;
providing one or more output interfaces;
providing a generic data format which is independent of the translation modules, input interfaces, and output interfaces;

25 converting the input source language text from the format for a specific input interface to the generic format;
determining the one or more translation modules that provides an optimal translation;

routing the text to the module that provides the optimal translation;
converting text from the generic data format to a specific input format of a
translation module;
5 converting the specific output format from a translation module to the
generic data format; and
converting data from the generic data format into an output format
suitable for an output interface.

106. The method of claim 105, wherein one or more translation
modules is a translation engine.

107. The method of claim 106, wherein the one or more translation
modules is coupled with a specialized dictionary with relevant vocabulary for a
translation request.

108. The method of claim 107, wherein the specialized dictionary is
chosen from subject-specific, application-specific, client-specific, and user-
15 specific dictionaries.

109. The method of claim 105, wherein the one or more translation
modules includes at least one static translation cache.

110. The method of claim 105, wherein the one or more translation
modules include at least one dynamic translation cache.

20 111. The method of claim 105, wherein the one or more translation
modules include at least one input pre-processing system.

112. The method of claim 105, wherein the one or more translation
modules include at least one output post-processing system

113. A method for electronically translating text, comprising:
25 providing an electronic language translator coupled to an interface;

translating source language text at the electronic language translator into one or more target language texts;

5 outputting translated text in one or more target languages to an output interface;

providing controls at an interface coupled to the electronic language translator to dynamically select which of the one or more target languages are output at the interface;

10 varying the interface representation of text in the one or more target languages to allow a user to differentiate between the displayed languages;

15 and

providing controls at an interface to create differentiation between one or more target languages.

114. The method of claim 113, wherein the electronic language translator outputs the source language input text, in addition to the one or more target language texts.

115. The method of claim 114, wherein the electronic language translator includes controls at the interface coupled to dynamically select which of the source and target languages are output at the interface.

20 116. The method of claim 115, wherein the electronic language translator varies the interface representation of the text in the source and one or more target languages to allow the user to differentiate between the display languages.

25 117. The method of claim 116, wherein the electronic language translator provides controls at an interface to create differentiation between the source and one or more target languages.

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118. The method of claim 113, wherein the variation of the representation of the output is chosen from varying typefaces, varying colors, varying spatial placement, and adding typographic symbols.

121. A method for electronically translating text, comprising:
5 providing an electronic language translator coupled to an interface; translating the source language text at the electronic language translator into one or more target language texts; displaying the translated output to the original user; and providing feedback to the original user about the quality of the translation.

122. The method of claim 121, wherein the translator with feedback displays the original input text aligned with one or more output target languages.

123. The method of claim 121, wherein the translator with feedback provides an electronic dictionary attached to the translated text.

124. The method of claim 123, wherein the attached electronic dictionary is used by the user to translate words from the translated text back into the source language, in order to double-check the translation quality.

125. The method of claim 124, wherein the attached electronic dictionary is hyperlinked to the words in the translated text.

126. The method of claim 125, wherein the hyperlinked dictionary is activated by clicking on a word.

20 127. The method of claim 126, wherein clicking on a word retrieves its translation from the hyperlinked dictionary.

128. The method of claim 126, wherein clicking on a word retrieves its definition from the hyperlinked dictionary.

129. The method of claim 124, wherein the attached electronic dictionary is activated by mousing over words in the translated text.

130. The method of claim 129, wherein mousing over a word in the translated text retrieves its translation from the attached electronic dictionary.

5 131. The method of claim 130, wherein mousing over a word in the translated text retrieves its definition from the attached electronic dictionary.

132. The method of claim 121, wherein the translator with feedback passes the translated text through a language model and indicates when the translated output is not recognized by the model with a minimum confidence level.

10 133. The method of claim 132, wherein the language model is chosen from a trigram model, a bigram model, a unigram model, or a linear combination of a trigram, bigram, and unigram model.

134. The method of claim 132, wherein the language model is a Hidden Markov Model.

15 135. The method of claim 121, wherein the translator with feedback indicates to the user words that were not translated by the electronic language translator.

136. The method of claim 135, wherein the untranslated words are indicated in the output text through visual means.

20 137. The method of claim 136, wherein the visual means are chosen from highlighting, differently colored font, italics, bolding, underlining, and surrounding the untranslated words with special characters.

138. The method of claim 135, wherein the untranslated words are returned to the user in a list.

139. The method of claim 121, wherein the translator with feedback is used simultaneously across a network by more than one user at different interfaces.

140. The method of claim 139, wherein the multi-user translator
5 accepts input text from any of the multiple users.

141. The method of claim 140, wherein the multi-user translator displays to all of the multiple users the input text translated into one or more output languages.

142. The method of claim 141, wherein the multi-user translation
10 system with feedback includes an indicator for users to indicate that a translation of an input was not understandable.

143. The method of claim 142, wherein the poor-translation indicator redisplays to all users the input which was not understandable in translation, along with a request to rephrase the input.

144. The method of claim 143, wherein the poor-translation indicator
15 warning serves as feedback to the user that originally entered the input which was not understandable in translation.

145. A method for electronically translating text, comprising:
20 providing an electronic language translator coupled to an interface;
translating the source language text at the electronic language translator into one or more target language texts ;
producing at least two candidate translations for each source language
text;
25 comparing the translated candidates to one or more language models
trained on data similar in style and subject matter to the text being translated;

selecting the best quality translation for the input from the multiple translation candidates, according to which best matches the one or more language models; and

displaying a desired best quality translation.

5 146. The method of claim 145, wherein the multi-candidate electronic language translator includes two or more translation engines that each produce at least one candidate translation.

10 147. The method of claim 145, wherein the multi-candidate electronic language translator includes at least one translation engine which produces two or more candidate translations for each input.

148. The method of claim 145, wherein the one or more multi-candidate electronic language translator's language models are chosen from unigram models, bigram models, and trigram models, or a linear combination of unigram, bigram, and trigram models.

15 149. The method of claim 145, wherein the one or more multi-candidate electronic language translator's language models are Hidden Markov Models.

20 150. A system for electronically translating text, comprising an electronic language translator that receives source language text input and produces translated target language text; and an interface coupled to the electronic language translator and configured to provide a user with an option of viewing one or more target language texts with or without source language text.

25 151. The system of claim 150, wherein the electronic language translator includes at least one translation engine.

152. The system of claim 150, wherein the electronic language translator includes a translation cache.

153. The system of claim 152, wherein the translation cache includes a store of phrases and equivalents across multiple languages.

5 154. The system of claim 152, wherein the translation cache includes a store of source and one or more target language equivalents that are dynamically updated.

10 155. The system of claim 152, wherein the translation cache includes a processing unit for executing matching between inputs and cache entries which are not typographically identical.

156. The system of claim 155, wherein the flexible matching unit includes a routine for ignoring differences in the capitalization scheme.

157. The system of claim 155, wherein the flexible matching unit includes a routine for ignoring differences in the punctuation.

15 158. The system of claim 155, wherein the flexible matching unit includes a routine for dividing the input at punctuation.

159. The system of claim 155, wherein the flexible matching unit includes a routine for eliminating appellatives at the beginning and end of phrases before attempting the match.

20 160. The system of claim 155, wherein the flexible matching unit includes a glossary of abbreviations, slang forms, and other non-standard forms, plus a routine for substituting standard forms for the glossary entries.

161. The system of claim 155, wherein the flexible matching unit includes a diacritic removal routine.

162. The system of claim 155, wherein the flexible matching unit includes a hiragana and katakana unification routine for Japanese inputs.

163. The system of claim 155, wherein the flexible matching unit includes a small and large kana unification routine for Japanese inputs.

5 164. The system of claim 155, wherein the flexible matching unit includes a sentence-final expressive particles (*gobi*) elimination routine for Japanese inputs.

165. The system of claim 150, wherein the electronic language translator includes a plurality of translation engines.

10 166. The system of claim 165, wherein the electronic language translator includes a multiple engine comparison tool that receives translated target language outputs from multiple engines and selects a desired output.

15 167. The system of claim 150, wherein the electronic language translator includes a pre-processor that improves the translatability of the source language.

168. The system of claim 167, wherein the pre-processor includes a language-specific source language input corrector for improved translatability

169. The system of claim 167, wherein the pre-processor includes a spell-checker unit. -

20 170. The system of claim 167, wherein the pre-processor includes an acronyms and abbreviations expander. -

171. The system of claim 167, wherein the pre-processor includes an accent-restoration unit.

172. The system of claim 167, wherein the pre-processor includes a slang replacement unit.

173. The system of claim 167, wherein the pre-processor includes a conversational constructions replacement routine.

5 174. The system of claim 167, wherein the pre-processor includes a sentence-final expressive particles elimination routine.

175. The system of claim 174, wherein the pre-processor includes a Japanese gobi elimination routine.

10 176. The system of claim 150, wherein the electronic language translator includes a translator training tutorial. -

177. The system of claim 150, wherein the electronic language translator includes an input composition tool which interactively guides the user to use translation-friendly language.

15 178. The system of claim 177, wherein the composition tool includes a spell checker.

179. The system of claim 177, wherein the composition tool includes a difficult-to-translate phrase detection routine.

180. The system of claim 177, wherein the composition tool includes a lexically-ambiguous word detection routine.

20 181. The system of claim 177, wherein the composition tool includes an input-length monitor.

182. The system of claim 181, wherein the input length monitor includes a word demerit monitor.

183. The system of claim 182, wherein the word demerit monitor is a conjunction demerit monitor.

184. The system of claim 177, wherein the composition tool includes a difficult-to-translate syntax scanner.

5 185. The system of claim 177, wherein the composition tool includes an ambiguous construction scanner.

186. The system of claim 177, wherein the composition tool includes an accent corrector.

10 187. The system of claim 177, wherein the composition tool includes a language model.

188. The system of claim 187, wherein the language model is chosen from a trigram model, bigram model, unigram model, or a linear combination of trigram, bigram, and unigram models.

15 189. The system of claim 187, wherein the language model is a Hidden Markov Model.

190. The system of claim 177, wherein the composition tool includes a language model for preliminary translations.

20 191. The system of claim 190, wherein the language model is chosen from a trigram model, bigram model, unigram model, or a linear combination of trigram, bigram, and unigram models.

192. The system of claim 190, wherein the language model is a Hidden Markov Model.

193. The system of claim 150, wherein the electronic language translator includes a do-not-translator indicator.

194. The system of claim 193, wherein the do not-translate indicator is a set of special characters places before and after text not to translate.

5 195. The system of claim 193, wherein the do-not-translate indicator includes a translation-neutral token substitution routine.

196. The system of claim 195, wherein the translation-neutral token is a randomly-generated very large integer.

10 197. The system of claim 195, wherein the translation-neutral token is a randomly-generated very large integer concatenated with a sequentially generated integer.

198. The system of claim 195, wherein the translation-neutral token is a randomly-generated alpha-numeric string.

15 199. The system of claim 195, wherein the translation-neutral token is a randomly-generated alpha-numeric string concatenated with a sequentially generated character.

200. The system of claim 195, wherein the translation-neutral token is a randomly-generated alpha-numeric string concatenated with a sequentially generated integer.

20 201. The system of claim 150, wherein the electronic language translator includes specialized dictionaries.

202. The system of claim 201, wherein the specialized dictionaries are chosen from topic-specific, application-specific, and user-specific dictionaries.

203. The system of claim 150, wherein the electronic language translator includes a capitalization recording and restoration unit.

204. The system of claim 150, wherein the electronic language translator includes a punctuation recording and restoration unit.

5 205. The system of claim 150, wherein the electronic language translator includes a poor-translation feedback mechanism for the input user.

206. A system for electronically translating text, comprising an input interface for submitting source language text to an electronic language translator;

10 an electronic language translator for translating the source language text to at least one target language at the time of submission of the source language text; and

an output interface for outputting the at least one target language text from the electronic language translator.

15 207. The system of claim 206, wherein the output interface produces as output at least one of the target language texts and at least a portion of the source language text.

208. The system of claim 206, wherein the input interface includes a text submission device and the output interface includes a translated text display device.

209. The system of claim 208, wherein the output interface includes a reply composition device.

210. The system of claim 209, wherein the output interface includes a reply submission device.

211. The system of claim 210, wherein electronic language translator includes a component to translate the submitted replies into the original source language.

212. The system of claim 211, wherein the electronic language translator includes components to disseminate the original and reply texts to multiple users.

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213. The system of claim 212, wherein the electronic language translator includes interfaces which allow the multiple users to reply to messages and have the replies disseminated to multiple users.

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214. The system of claim 212, wherein the electronic language translator is within a chat system environment.

215. The system of claim 212, wherein the electronic language translator is within a instant messaging system environment.

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216. The system of claim 212, wherein the electronic language translator is within a discussion board system environment.

217. The system of claim 212, wherein the electronic language translator is within an email system environment.

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218. The system of claim 212, wherein the electronic language translator is within an electronic customer service system environment.

219. The system of claim 218, wherein the electronic language translator is within a chat system environment in an electronic customer service system environment.

220. The system of claim 218, wherein the electronic language translator is within an email system environment in an electronic customer service system environment.

221. The system of claim 220, wherein the email electronic customer service system includes a first-user input text meaning analyzer.

222. The system of claim 221, wherein the first-user input text meaning analyzer is triggered by receipt of the input text without explicit instructions from a human operator.

223. The system of claim 221, wherein the email electronic customer service system includes an automatic reply-generation component which generates a reply based on the analyzed meaning of the input text.

224. The system of claim 223, wherein the reply generation component is triggered by receipt of the input text without explicit instructions from a human operator.

225. The system of claim 223, wherein the reply generation component generates the reply to the first user in the first user's original source language.

226. The system of claim 206, wherein the electronic language translator includes a posting tool to post at least one target language to an electronic marketplace system.

227. The system of claim 226, wherein the electronic language translator includes a storage routine to store at least one target language text to a marketplace database.

228. The system of claim 226, wherein the electronic language translator includes a posting tool to post at least one target language text to the electronic marketplace system along with the source language text. component

229. The system of claim 226, wherein the electronic language translator interprets the source language text as a description of an object in an electronic marketplace system and the one or more target language texts as translations of the object description.

5 230. The system of claim 206, wherein the electronic language translator interprets the source language text as a search query string, and includes an electronic search system configured to receive at least one translated text output as a search query string.

10 231. The system of claim 230, wherein the electronic search system's output interface translates the returned search results into the original user's source language using the electronic language translator.

15 232. The system of claim 206, wherein the electronic language translator's input interface accepts the source language text in the form of a request for a document, which is submitted from the original user's hardware using a software client, transported over a network, and delivered to a server.

233. The system of claim 232, wherein the electronic language translator includes a routine to interpret a markup language which augments the requested document.

20 234. The system of claim 233, wherein the electronic language translator includes a component to extract the textual components of the document and translate them into at least one target language.

235. The system of claim 233, wherein the textual components of the document are chosen from text, mouseovers, meta-tags, and cookies.

236. The system of claim 234, wherein the electronic language translator includes a component to rewrite the hotlinks within the document to be calls to the electronic language translator.

237. The system of claim 236, wherein the electronic language translator includes a component to reconstitute the at least one target language output with the non-textual portions of the original document according to the original markup language tags, and return the reconstituted document to the original requesting user.

238. The system of claim 237, wherein the non-textual portions of the original document are chosen from graphics, pictures, formatting, backgrounds, frames, animations, sounds, and videos.

239. The method of claim 237, wherein the reconstituted document is returned to the original requesting user to preserve the original look and feel of the original requested document.

240. The system of claim 237, wherein the original user's hardware is a computer, the user's software client is a browser, the network is a network connection between computers, the server is another computer, and the markup language is HTML.

241. The system of claim 237, where the original user's hardware is a personal data assistant, the user's software client is a PDA browser, the network is a wireless internet, the server is a computer, and the markup language is WML or HDML.

242. The system of claim 237, where the original user's hardware is a phone, the user's software client is a WAP browser, the network is a WAP network, the server is a computer, and the markup language is WML or HDML.

243. The system of claim 237, where the original user's hardware is a phone, the user's software client is an iMode browser, the network is an iMode network, the server is a computer, and the markup language is WHTML.

244. A system for electronically translating text, comprising:

5 an electronic language translator system that includes an electronic language translator and at least a first and a second dictionary, wherein the electronic language translator references the first dictionary and then the second dictionary in a process of translating source language text into one or more target language texts and the dictionaries are maintained in an application or customer
10 hierarchy;

an interface for receiving input of the electronic language; and
an interface for outputting the source language text translated into one or more target languages.

15 245. The system of claim 244, wherein the electronic dictionaries include one or more of subject-specific, application-specific, customer-specific, and user-specific dictionaries.

20 246. The system of claim 245, wherein the electronic language translator includes a component for selecting which specialized dictionaries are to be used for translation dynamically, at the time of translation.

247. The system of claim 245, wherein the electronic language translator includes a specialized dictionary creation component.

248. The system of claim 245, wherein the electronic language translator includes a specialized dictionary hierarchy maintenance routine.

25 249. The system of claim 248, wherein the dictionary hierarchy includes a hierarchy augmentation tool to allow users to augment the hierarchy with user-created dictionaries.

250. The system of claim 245, wherein the electronic language translator includes creation, storage, and modification routines for the specialized dictionaries, a dictionary format which is independent of any specific translation engine, and a dictionary mapping routine which maps the independent dictionary format into engine-specific formats by engine-specific routines.

251. A system for electronic language translation, comprising;
one or more translation modules receiving source language text from an input interface;
10 one or more input interfaces;
one or more output interfaces;
a generic data format that is independent of the translation modules, input interfaces and output interfaces;
a conversion module configured to convert input source language text from a specific input interface to a generic format;
15 a routing module configured to determine the one or more translation modules that provide an optimal translation and then route the text to the module that provides the optimal translation;
a conversion module configured to convert text from the generic data format to a specific input format of a translation module;
20 a conversion module configured to convert specific output format from a translation module to the generic data format; and
a conversion module configured to convert data from the generic data format into an output format suitable for an output interface.

25 252. The system of claim 251, wherein one or more translation modules is a translation engine.

253. The system of claim 252, wherein the one or more translation modules is coupled with a specialized dictionary with relevant vocabulary for a
30 translation request.

254. The system of claim 252, wherein the specialized dictionary is chosen from subject-specific, application-specific, client-specific, and user-specific dictionaries.

255. The system of claim 251, wherein the one or more translation modules includes at least one static translation cache.

256. The system of claim 251, wherein the one or more translation modules includes at least one dynamic translation cache is as a module.

257. The system of claim 251, wherein the one or more translation modules includes at least one input pre-processing system is as a module.

10 258. The system of claim 251, wherein the one or more translation modules includes at least one output post-processing system is as a module.

15 259. A system for electronically translating text, comprising:
an electronic language translator which translates the source language text into one or more target language texts;
an output interface that displays one or more target languages; and
an output interface configured to vary an interface representation of text in the one or more target languages.

20 260. The system of claim 259, further comprising:
controls at the output interface that permit a user to customize differentiation between source and target languages.

25 261. The system of claim 260, wherein the controls permit a user to customize differentiation between source and multiple target languages.

262. A system for electronically translating text, comprising:
an electronic language translator with feedback;

an interface for receiving input of the electronic language;
an interface for outputting the source language text translated into one or more target languages; and
a component for providing feedback to the original user about the quality of the
5 translation.

263. The system of claim 263, wherein the translator with feedback includes a component for displaying the original input text aligned with one or more output target languages.

10 264. The system of claim 263, wherein the translator with feedback includes an electronic dictionary coupled to a main text.

265. The system of claim 264, wherein a hyperlink component couples the dictionary to the main text.

266. The system of claim 264, wherein a mouse-over component couples the dictionary to the main text.

15 268. The system of claim 263, wherein the translator with feedback includes a component to indicate to the user words that were not translated by the electronic language translator.

269. The system of claim 263, wherein the translator with feedback includes a component to display translated output to one or more other users.

20 270. The system of claim 269, wherein the translator with feedback includes a component for third party users to indicate if translation of the input was understandable.